REMARKS

Claims 23-52 are pending in the instant application. The Examiner has issued a restriction requirement, asserting that pending Claims 23-52 constitute two distinct inventions, grouped as follows:

I. Claims 23-35 and 44-52, drawn to an isolated nucleic acid, expression vectors, transformed host cells, and a process of expressing a heterologous gene in a host cell, class and subclass unspecified; and

II. Claims 36-43, drawn to an isolated polypeptide, class and subclass unspecified.

The Examiner indicates that the inventions listed as Groups I and II do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features. The Examiner contends that the inventions of Group I and Group II are drawn to structurally and functionally different products. According to the Examiner, the fact that the nucleic acids of Group I encode the polypeptides of Group II is not sufficient to define a contribution over the prior art.

Applicants disagree with the Examiner's position for the following reasons. As stated in PCT Rule 13.2,

> the requirement of unity of invention ... shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, *considered as a whole*, makes over the prior art. (Emphasis added).

The instant invention relates to novel nucleic acids comprising the SGS3 plant gene, vectors containing same, and host cells transformed by these vectors. While some of these nucleic acids are useful in and of themselves, *e.g.* as hybridization probes to identify additional SGS3 genes or as antisense or RNA interference reagents to silence the expression of SGS3 genes, many uses of the claimed SGS3 genes contemplate translation of the nucleic acid into the corresponding protein. Thus, *consideration of the invention as a whole* by the Examiner will necessarily entail evaluation of the nucleic acid sequences of SEQ ID NOS:1 and 2 as well as the polypeptide sequence of SEQ ID NO:3, which is encoded by SEQ ID NO:2. This conclusion is further supported by the fact that the Examiner has included Claim 50 within Group I. Claim 50 is directed toward a process for expressing a heterologous gene in a host organism comprising contacting the host organism comprising the heterologous gene with a polypeptide comprising an amino acid sequence at least 80% homologous to SEQ ID NO:3. Thus, the Examiner concedes that examination of Claim 50 will require a search of polypeptide sequences that are at least 80% homologous to the polypeptide sequence of SEQ ID NO:3.

In addition to these considerations under Rule 13 of the Patent Cooperation Treaty, U.S. examination procedure also argues for treating the two groups as a single invention. For example, Section 800 of the MPEP notes that there are two criteria for a proper requirement for restriction between patentably distinct inventions: (1) The inventions must be independent (see MPEP § 802.01, § 806.04 and § 808.01) or distinct as claimed (see MPEP

§ 806.05 - § 806.05(i)); and (2) there must be a serious burden on the Examiner if restriction is required (see MPEP § 808.02, § 806.04(a) - § 806.04(i), § 808.01(a), and § 808.02). The term "independent" (*i.e.* not dependent) means that there *is no disclosed relationship* between the two or more subjects disclosed, that is, they are unconnected in design, operation, or effect. (Emphasis added, MPEP § 802.01).

Applicants submit that nucleic acids encoding SGS3 polypeptides (Group II) and nucleic acids, vectors comprising these nucleic acids, and host cells comprising these vectors (Group I) are not "independent" subjects as defined in MPEP § 802.01. A relationship exists between the subjects of these groups in that they all relate to SGS3 genes and their gene products, which are the subject of the instant invention and the relationship between which is clearly disclosed in the instant application.

In addition, MPEP § 803 states that "[i]f the search and examination of an entire application can be made without serious burden, the Examiner *must* examine it on the merits, even though it contains claims to distinct or independent inventions." (Emphasis added). As noted above, a search of the claims of Group I will necessarily require a search of polypeptides comprising an amino acid sequence at least 80% homologous to the polypeptide of SEQ ID NO:3. Thus, the examination of Claims 36-43 cannot constitute a serious burden on the Examiner.

Applicants also submit that the claims of Groups I and II are connected by a single, searchable unifying relationship (*i.e.* the SGS3 protein of monocotyledonous or

dicotyledenous plants). In view of this single, searchable unifying relationship, Applicants submit that the Examiner would not be seriously burdened by searching and examining the claims of these groups in a single application. Accordingly, Applicants request withdrawal of the restriction requirement issued under 35 U.S.C. §§ 121 and 372.

In the interest of furthering prosecution and to ensure a complete reply to the restriction requirement, Applicants elect, with traverse, the invention of Group I, consisting of Claims 23-35 and 44-52, which are drawn to isolated nucleic acids, expression vectors, transformed host cells, and a process of expressing a heterologous gene in a host cell.

CONCLUSION

On the basis of the foregoing remarks, Applicant asserts that the claims of Group I and II share a unity of invention and respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. §§ 121 and 372.

Applicants believe that no fees are due in connection with this timely-filed response. However, should any fees be required in connection with this response, or should any overpayment be made, the Commissioner is hereby authorized to charge and required fees or credit any overpayments to Deposit Account Number 02-4377. A duplicate copy of this communication is enclosed.

Respectfully submitted,

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Enclosure